

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

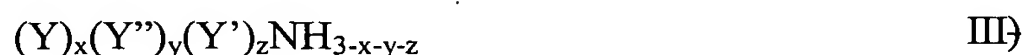
1. (Original) A process for preparing a polyamine derivative, comprising:
  - (a) reacting at least one polyamine wherein one or more polyamines, each with one or more  $\text{NH}_2$  functions and one or more second amine functions, said second amine functions having a lower lactone reactivity than said  $\text{NH}_2$  functions, is reacted in a first step with at least one member selected from the group consisting of one or more lactones, hydroxyacids, cyclic carbonates, ~~or~~ and mixtures thereof, to form a polyamine derived compound,

wherein:

each of the polyamines comprises at least one  $\text{NH}_2$  functional group and at least one second amine functional group, the second amine functional group having a lower lactone reactivity than the  $\text{NH}_2$  functional group, and

the polyamine-derived compound having at least one of an amide and an urethane group; and

~~with amide and/or urethane groups, which polyamine-derived compound is reacted in a second step~~
  - (b) reacting the polyamine-derived compound with an amine modifier and at least one or more at least bifunctional amine-specific reagents reagent to form an intermediate, the amine-specific reagent having at least two amine-specific functional groups, and optionally comprising ester and/or carbonate groups, wherein in the second step optionally an additional an amine modifier of given by formula III):



wherein:

\_\_\_\_\_ x is an integer of 0, 1 or 2,

\_\_\_\_\_ y is an integer of 0, 1 or 2,

\_\_\_\_\_ z is an integer of 0 or 1, ~~wherein~~

\_\_\_\_\_ x+y is 1 or 2,

\_\_\_\_\_ x+y+z is 1 or 2,

\_\_\_\_\_ Y represents an ~~(anchoring)~~ anchoring moiety with affinity for a pigment surface or substrate,

\_\_\_\_\_ Y'' represents a ~~(stabilising)~~ stabilising moiety with affinity for the a matrix, and

\_\_\_\_\_ Y' represents a further group that is neither an anchoring moiety nor a ~~stabilising moiety, is co-reacted~~ moiety;

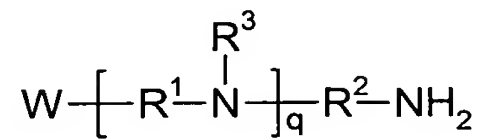
~~and in the intermediate at least two polyamine residues, or if a modifier is co-reacted,~~  
~~wherein the intermediate comprises~~ at least one polyamine residue and at least one ~~optional~~  
 amine modifier ~~residue, residue~~ are linked by the ~~bifunctional~~ amine-specific reagent.

2. (Currently Amended) ~~A~~ The process according to claim 1, wherein ~~in the~~  
~~second step an intermediate comprising~~ comprises at least two polyamine residues ~~is formed~~.

3. (Currently Amended) ~~A~~ The process according to claim 1, wherein ~~the a~~  
 number of lactone, hydroxy acid, and/or cyclic carbonate molecules is from 0.1 to 10 times  
 the number of -NH<sub>2</sub> functional groups of the polyamine .

4. (Currently Amended) ~~A~~ The process according to claim 1, wherein the  
~~bifunctional~~ amine-specific reagent is ~~used~~ present in an amount such that ~~the a~~ number of  
 amine-reactive -groups ~~corresponds to~~ is from 0.1 to 10 times ~~the a~~ sum of ~~the a~~ number of  
 second amine ~~functions~~ functional groups of the polyamine-derived compound and ~~the a~~  
 number of amine ~~functions~~ functional groups of the ~~optional~~ amine modifier.

5. (Currently Amended) ~~A~~ The process according to claim 1, wherein a the  
polyamine is ~~used of~~ given by formula I)



I),

~~wherein where:~~

~~q is an integer from 1 to 10, wherein~~

~~R<sup>1</sup> and R<sup>2</sup>, independently, are each independently selected from an~~  
alkylene ~~groups-group~~ with from 1 to 10 carbon atoms, ~~wherein~~

~~each of R<sup>3</sup>, is independently, is selected from the group consisting of~~  
hydrogen, hydroxyalkyls, alkylamines, polyalkylamines, and polyalkylpolyamines, and  
~~wherein~~

~~W is a hydroxy or an amine.~~

6. (Currently Amended) A process according to claim 1, ~~which comprises a~~  
~~further step wherein one or more of the~~ wherein:

at least one of the polyamine-derived compound and the intermediate  
comprises at least one -OH group; and

the process further comprises reacting the at least one -OH groups-group of  
the polyamine-derived compound or the intermediate which are present after the first step are  
reacted to attach a matrix-compatible moiety with having a molecular weight of more than  
250 to said the polyamine-derived compound or the intermediate, with said further step being  
conducted either between the first and second steps or, preferably, after the second step.

7. (Currently Amended) ~~A~~ The process according to elaim 5-claim 6, wherein:  
reacting the at least one -OH-groups group comprises reacting the at least one  
-OH group with are reacted with one or more at least one compounds compound selected

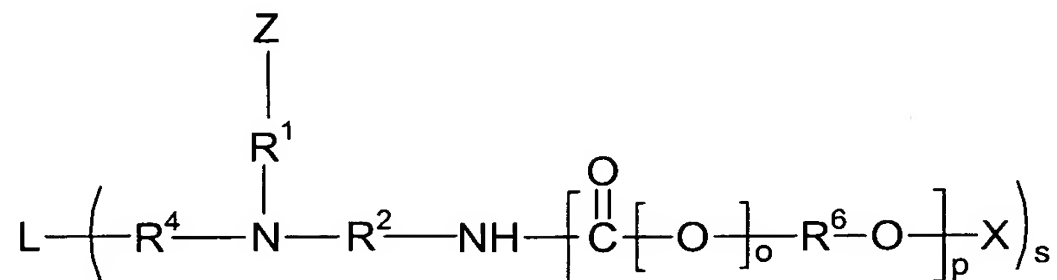
from the group consisting of epoxides, lactones, cyclic carbonates, and hydroxy acids, ~~and~~  
~~other suitable conventional reactants to form polyesters, to form a~~ matrix-compatible moiety;  
and

the matrix-compatible moiety comprises a linear or branched, substituted or  
~~unsubstituted, preferably unsubstituted, C<sub>4</sub>-C<sub>30</sub> alkyl, a polyester, a polyether, a polyetherester~~  
~~or a polyesterether groups group.~~

8. (Canceled)

9. (Currently Amended) ~~Polyamine~~ A polyamine derivative of given by formula

II-:



II)

wherein:

each R<sup>4</sup>NR<sup>1</sup>ZR<sup>2</sup>NH moiety is a residue of a polyamine;

each C(O)[O]R<sup>6</sup>O moiety is a residue of a lactone, hydroxyacid and/or cyclic carbonate;

L is a residue of an at least bifunctional amine-specific reagent;

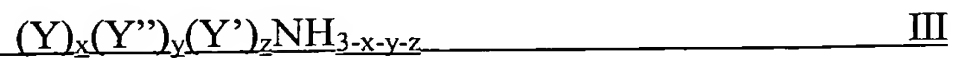
~~R<sup>1</sup> and R<sup>2</sup> are as defined above for formula I)~~ R<sup>1</sup> and R<sup>2</sup> are each  
independently an alkylene group with from 1 to 10 carbon atoms;

each index o will is independently be 0 or 1;

index p represents the average number of moiety C(O)[O]R<sup>6</sup>O per  
R<sup>4</sup>NR<sup>1</sup>ZR<sup>2</sup>NH moiety and has a value ranging from 0.1 to 30;

each X is hydrogen or, wholly or partly, a substituted or unsubstituted, linear or branched, hydrocarbon group, a polyester, a polyether, a polyetherester or a polyesterether group;

index s represents an integer of 1 to 10, wherein if s is 1, the amine-specific reagent L is further reacted with ~~a compound of formula III as defined above~~ an amine modifier being given by formula III



wherein:

x is 0, 1 or 2,

y is 0, 1 or 2,

z is 0 or 1,

x+y is 1 or 2,

x+y+z is 1 or 2,

Y is an anchoring moiety with affinity for a pigment surface or substrate,

Y'' is a stabilising moiety with affinity for a matrix, and

Y' is a further group that is neither an anchoring moiety nor a stabilising moiety;

R<sup>3</sup> is independently selected from the group consisting of hydrogen, hydroxyalkyls, alkylamines, polyalkylamines and polyalkylpolyamine;

R<sup>4</sup> represents a group R<sup>3</sup> minus a proton;

~~R<sup>3</sup> is as defined above for formula I), Z presents a group W'-[R<sup>1</sup>-NR<sup>5</sup>]<sub>q-1</sub>,~~ Z- represents a

group W'-[R<sup>1</sup>-NR<sup>5</sup>]<sub>q-1</sub>, wherein W' is W as defined for formula I above a hydroxy or an

amine or the reaction product of group W the hydroxy or the amine with at least one lactone, hydroxyacid, and/or cyclic carbonate; and

\_\_\_\_\_ each R<sup>5</sup> independently is a group R<sup>3</sup> or the reaction product of R<sup>3</sup> with amine-specific reagent L.

10. (Currently Amended) ~~Polyamine~~ A polyamine derivative obtainable-obtained by ~~a~~ the process according to claim 1.

11-12. (Canceled).

13. (Previously Presented) A printing ink formulation, comprising the polyamine derivative of claim 9.

14. (Previously Presented) A coating composition, comprising the polyamine derivative of claim 9.

15. (Previously Presented) A pigment dispersant, comprising the polyamine derivative of claim 9.

16. (Previously Presented) A printing ink formulation, comprising the polyamine derivative of claim 10.

17. (Previously Presented) A coating composition, comprising the polyamine derivative of claim 10.

18. (Previously Presented) A pigment dispersant, comprising the polyamine derivative of claim 10.

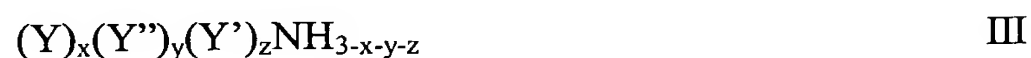
19. (New) A process for preparing a polyamine derivative, comprising:  
 (a) reacting at least one polyamine with at least one member selected from the group consisting of lactones, hydroxyacids, cyclic carbonates, and mixtures thereof, to form a polyamine derived compound,

wherein:

each of the polyamines comprises at least one -NH<sub>2</sub> functional group and at least one second amine functional group, the second amine functional group having a lower lactone reactivity than the -NH<sub>2</sub> functional group, and

the polyamine-derived compound comprises at least one of an amide and urethane group; and

(b) reacting the polyamine-derived compound with at least one amine-specific reagent, and optionally with an amine modifier, to form an intermediate, the amine-specific reagent having at least two amine-specific functional groups, and the amine modifier being given by formula III:



wherein:

x is an integer of 0, 1 or 2,

y is an integer of 0, 1 or 2,

z is an integer of 0 or 1,

x+y is 1 or 2,

x+y+z is 1 or 2,

Y represents an anchoring moiety with affinity for a pigment surface or substrate,

Y'' represents a stabilising moiety with affinity for a matrix, and

Y' represents a further group that is neither an anchoring moiety or a stabilising moiety;

wherein the intermediate comprises at least two polyamine residues linked by the amine-specific reagent, or if an amine modifier is used, the intermediate comprises at least one polyamine residue and at least one amine modifier residue linked by the amine-specific reagent, and

the intermediate having an anchoring moiety with affinity for a pigment surface or substrate, and a stabilising moiety with affinity for a matrix.